

REMARKS

The Office Action dated November 28, 2007 has been received and carefully considered. In this response, claims 1, 2, 6, 14-18, and 21-29 have been amended. No new matter has been added. Entry of the amendments to claims 1, 2, 6, 14-18, and 21-29 without prejudice is respectfully requested. Reconsideration of the current rejections in the present application is also respectfully requested based on the following remarks.¹

At the outset, the undersigned thanks the Examiner and the Primary Examiner assigned to this application for the courtesies extended during the interview conducted on February 28, 2008, during which a discussion was held regarding potential and suggested claim amendments, which are reflected herein.

I. SUPPORT IS FOUND IN THE SPECIFICATION FOR THE CLAIM AMENDMENTS

Applicants note that sufficient support for the claim amendments made herein is found in the application

¹ As Applicants' remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicants' silence as to assertions made by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., assertions regarding dependent claims, whether a reference constitutes prior art, whether references are legally combinable for obviousness purposes) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserves the right to analyze and dispute such in the future.

specification. Support may be found, for example, at least at paragraphs [0030], [0033], [0066], [0067], [0076], and Figures 1, 4, and 5 of the published application. Applicants believe that no new matter has been added by virtue of the claim amendments.

II. THE ANTICIPATION REJECTION OF CLAIMS 1-10, 13-15, AND 21-29

On page 2 of the Office Action, claims 1-10, 13-15, and 21-29 were rejected under 35 U.S.C. § 102(e) as being anticipated by Wu (U.S. Patent No. 6,981,114). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re King, 801 F.2d 1324, 1326 (Fed. Cir. 1986). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Celeritas Tech., Ltd., v. Rockwell Int'l Corp., 150 F.3d 1354, 1361 (Fed. Cir. 1998). "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re

Donohue, 766 F.2d 531, 533 (Fed. Cir. 1985). Such possession is effected only if one of ordinary skill in the art could have combined the disclosure in the prior art reference with his/her own knowledge to make the claimed invention. Id..

Regarding claim 1, the Examiner asserts that Wu discloses the claimed invention. Applicants respectfully disagree. However, in order to forward the present application toward allowance, Applicants have amended claim 1 to more specifically define the claimed invention, and specifically those features that differentiate the claimed invention from Wu, as well as the other cited references. In particular, Applicants respectfully submit that Wu fails to disclose, or even suggest, at least a method having a "current store representing a current state of the storage system. . ." , as presently claimed.

In contrast, Wu discloses a system whereby snapshots are created to back up and restore a computer system. Modification logs may be maintained in order to reconstruct a snapshot from an existing snapshot and one or more modification logs. See Wu, Title; col. 2, ll. 16-18. Snapshots of a target system are created. Modification logs are maintained to capture the changes between one snapshot and the next snapshot. Wu, col. 6, ll. 14-23. If the number of snapshots is greater than a limit, for example, the allowable disk space, one or more snapshots is

deleted. Wu, col. 5, l. 59 - col. 6, l. 9. Modification logs are used in order to recreate snapshots that have been deleted, either through "forward" modification logs, to recreate a snapshot from an earlier snapshot, or through "backward" modification logs, to recreate a snapshot from a later snapshot. Wu, col. 8, ll. 51-66. If modifications are identified in the modification logs by creation time, then point-in-time snapshots may be constructed. Wu, col. 9, ll. 45-61. Thus, Wu discloses recreating snapshots from existing snapshots. That is, Wu discloses using an existing snapshot, and then applying one or more modification logs in order to recreate a different snapshot, either through the application of a "forward" modification log or a "backward" modification log. Wu does not disclose maintaining a current store, which may be used to restore a storage system to any previous point in time. Accordingly, it is respectfully submitted that claim 1 is allowable over Wu.

As stated in MPEP § 2131, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987).

Regarding claims 1-10, 13, 26, and 27, these claims are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 1-10, 13, 26, and 27 should also be allowable at least by virtue of their dependency on independent claim 1.

Regarding claim 14, the Examiner asserts that Wu discloses the claimed invention. Applicants respectfully disagree. However, in order to forward the present application toward allowance, Applicants have amended claim 14 to more specifically define the claimed invention, and specifically those features that differentiate the claimed invention from Wu, as well as the other cited references. In particular, Applicants respectfully submit that Wu fails to disclose, or even suggest, at least that "the time store is identified as the location if the data was overwritten after the specified time, and the current store is identified as the location if the data was not overwritten after the specified time," as presently claimed.

In contrast, Wu, as described in greater detail above, discloses a system whereby snapshots are created to back up and restore a computer system. Modification logs may be maintained in order to reconstruct a snapshot from an existing snapshot and one or more modification logs. See Wu, Title; col. 2, ll. 16-18. Wu does not disclose maintaining a current store, which

may be used to restore a storage system to any previous point in time. Accordingly, it is respectfully submitted that claim 14 is allowable over Wu.

Regarding claims 15 and 28, these claims are dependent upon independent claim 14. Thus, since independent claim 14 should be allowable as discussed above, claims 15 and 28 should also be allowable at least by virtue of their dependency on independent claim 14.

Regarding claim 21, this claim recites subject matter related to claim 14. Thus, the arguments set forth above with respect to claim 14 are equally applicable to claim 21. Accordingly, it is respectfully submitted that claim 21 is allowable over Wu for the same reasons as set forth above with respect to claim 14.

Regarding claim 22, this claim is dependent upon independent claim 21. Thus, since independent claim 21 should be allowable as discussed above, claim 22 should also be allowable at least by virtue of their dependency on independent claim 21.

Regarding claim 23, the Examiner asserts that Wu discloses the claimed invention. Applicants respectfully disagree. However, in order to forward the present application toward allowance, Applicants have amended claim 23 to more specifically

define the claimed invention, and specifically those features that differentiate the claimed invention from Wu, as well as the other cited references. In particular, Applicants respectfully submit that Wu fails to disclose, or even suggest, at least "continuously indexing by timestamp old data to be overwritten with new data prior to execution of each write command," as presently claimed.

In contrast, Wu, as described in greater detail above, discloses a system whereby snapshots are created to back up and restore a computer system. Modification logs may be maintained in order to reconstruct a snapshot from an existing snapshot and one or more modification logs. See Wu, Title; col. 2, ll. 16-23. Wu discloses using modification logs to create deleted snapshots, but does not disclose "continuously indexing by timestamp old data to be overwritten with new data prior to execution of each write command" as recited in claim 23. Moreover, Wu discloses "detect[ing]" modifications via a modification manager. See Wu, col. 6, ll. 14-25. Wu does not disclose indexing by timestamp old data prior to execution of each write command. Accordingly, it is respectfully submitted that claim 23 is allowable over Wu.

Regarding claims 24, 25, and 29, these claims are dependent upon independent claim 23. Thus, since independent claim 23

should be allowable as discussed above, claims 24, 25, and 29 should also be allowable at least by virtue of their dependency on independent claim 23.

Regarding claims 1, 14, and 21, these claims recite subject matter related to claim 23. Thus, the arguments set forth above with respect to claim 23 are equally applicable to claims 1, 14, and 21. Accordingly, it is respectfully submitted that claims 1, 14, and 21 are allowable over Wu for the same reasons as set forth above with respect to claim 23.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1-20 be withdrawn.

III. THE OBVIOUSNESS REJECTION OF CLAIMS 11, 12, AND 16-20

On page 8 of the Office Action, claims 11, 12, and 16-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu in view of "UNIX in a Nutshell" by Gilly, et al. ("Gilly"). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 103, the Patent Office bears the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). There are four separate factual inquiries to consider in making an obviousness determination: (1) the scope and content of the prior art; (2)

the level of ordinary skill in the field of the invention; (3) the differences between the claimed invention and the prior art; and (4) the existence of any objective evidence, or "secondary considerations," of non-obviousness. Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966); see also KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727 (2007). An "expansive and flexible approach" should be applied when determining obviousness based on a combination of prior art references. KSR, 127 S. Ct. at 1739. However, a claimed invention combining multiple known elements is not rendered obvious simply because each element was known independently in the prior art. Id. at 1741. Rather, there must still be some "reason that would have prompted" a person of ordinary skill in the art to combine the elements in the specific way that he or she did. Id.; In re Icon Health & Fitness, Inc., 496 F.3d 1374, 1380 (Fed. Cir. 2007). Also, modification of a prior art reference may be obvious only if there exists a reason that would have prompted a person of ordinary skill to make the change. KSR, 127 S. Ct. at 1740-41.

It is respectfully submitted that the aforementioned obviousness rejection of claims 11, 12, and 16-20 has become moot in view of the deficiencies of the primary reference (i.e., Wu) as discussed above with respect to independent claims 1, 14, 21, and 23. That is, claims 11 and 12 are dependent upon

independent claim 1 and thus inherently incorporate all of the limitations of independent claim 1. Similarly, claims 16-20 are dependent upon independent claim 14 and thus inherently incorporate all of the limitations of independent claim 14. Also, the secondary reference (i.e., Gilly) fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claims 1 and 14. Indeed, the Examiner does not even assert such. Thus, the combination of the secondary reference with the primary reference also fails to disclose, or even suggest, the deficiencies of the primary reference as discussed above with respect to independent claims 1 and 14. Accordingly, claims 11, 12, and 16-20 should be allowable over the combination of the secondary reference with the primary reference at least by virtue of their dependency on independent claims 1 and 14. Moreover, claims 11, 12, and 16-20 recite additional features which are not disclosed, or even suggested, by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 11, 12, and 16-20 be withdrawn.

IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

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